CHAPTER 10

Sociocultural Issues in Adapting Spanish Health Survey Translation: The Case of the Quality of Well-Being Scale (QWB-SA)

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Introduction

Health-related quality-of-life (HRQoL) instruments have been used to assess and monitor health outcomes as well as inform national health priorities, including those in the United States (Centers for Disease Control and Prevention [CDC], 2018). For instance, the US CDC used HRQoL instruments to inform its national priorities for the Healthy People 2020 initiative to develop quality of life goals and initiatives to reduce health disparities (CDC, 2018). HRQoL is a multidimensional concept that has four domains: (1) physical, (2) mental, (3) emotional, and (4) social functioning. To measure HRQoL, a number of instruments have been developed in the United States and the United Kingdom including the Quality of Well-Being Scale (QWB) (Kaplan, Sieber, & Ganiats, 1997). QWB has gone through multiple iterations and has become a self-administered instrument, the QWB Self-Administered (SA). QWB-SA assesses an individual's symptoms and has been translated into seven languages, including Spanish (University of California, San Diego, n.d.).

Although QWB-SA has been used internationally by many researchers, little research has assessed the applicability of the translated QWB-SA instruments in the countries in which they are used. Therefore, the purpose of this chapter is to evaluate the degree to which the Spanish QWB-SA is applicable in Spain. To evaluate its applicability, we focus on identifying problems of translation in the Spanish QWB-SA and offer possible solutions. We focus on the Spanish QWB-SA because we could not locate any studies that have examined its applicability in Spain. In particular, this chapter addresses the following research questions: (1) Is the existing Spanish

translation linguistically and pragmatically appropriate for Spain? (2) What recommendations can be given regarding the adaptation of the Spanish translation for Spain?

Translation of Health and Quality-of-Life Questionnaires

Recent literature related to research instrument translation suggests that adaptation is crucial when the same instrument is used in a different culture or country (Harkness, 2003; Valderas, Ferrer, & Alonso, 2005; van Widenfelt, Treffers, De Beurs, Siebelink, & Koudijs, 2005; Wagner et al., 1998; Wild et al., 2009). The translation is adapted to account for cultural differences in the source text and ultimately to achieve pragmatic equivalence or cultural viability. On the other hand, when a translation is to be used in different countries or cultures that share the same language, as in the study presented here, harmonization steps aim to reduce translation focused on only one community and foster consideration of cultural and linguistic differences. This process is called shared language harmonization (Harkness, Dorer, & Mohler, 2016; Harkness, Pennell, & Schoua-Glusberg, 2004).

Although an increasing number of publications are focused on translated instruments, most publications do not describe the actual translation process (Maneesriwongul & Dixon, 2004; Squires, 2009). Nevertheless, the most frequently used technique to produce and review a translation in the health sciences field (especially in medicine and health psychology) is translation and back translation in a multistep approach (Acquadro, 2003; Anderson, Aaronson, Bullinger, & McBee, 1996; Bullinger, Anderson, Cella, & Aaronson, 1993; Guillemin, Bombardier, & Beaton, 1993; Squires, 2009). This method was first used in international comparative studies in the 1960s. Proponents included Robert Edward Mitchell in 1965, quoted by Deutscher (1973) and Werner and Campbell (1970) in intercultural research.

Brislin (1973) also applied back translation to assess the quality of translated texts from English to Navajo, Vietnamese, or Chamorro; the same method was used for assessing the quality of translations from English to Tagalog and Urdu (Sechrest, Fay, & Zaidi, 1972). However, there are opposing views on back translation. Some argue that back translation is useful because the question developers can compare the two versions in a language they understand. The drawback, however, is that one can obtain the same or a similar back translation from a poor translation or from an appropriate one (Harkness, 2008). More recent criticism has centered on the idea that the

target language text itself should be the object of interest, which means that revision processes should concentrate on the target language version rather than on the original version. Furthermore, Harkness, a linguist and cross-cultural survey methodologist, proposed eliminating the back-translation step altogether and introduced the translation, review, adjudication, pretesting, and documentation (TRAPD) model (Harkness, 2008). TRAPD is considered to be current best practice in survey translation (Przepiórkowska, 2016). However, some authors (Acquadro, Conway, Hareendran, Aaronson, & European Regulatory Issues Quality of Life Assessment Group, 2008; Angel, 2013; Kuliś, Arnott, Greimel, Bottomley, & Koller, 2011) argue that there is no clear evidence that one approach is superior to the other.

What is clear, however, is that back translation is not an ideal method to assess translation quality because it entails a literal translation of the actual translation back into the source language; therefore, it does not address translation quality in a comprehensive manner (Behr & Shishido, 2016; Coulthard, 2013; Hambleton, 1996; Swaine-Verdier, Doward, Hagell, Thorsen, & McKenna, 2004; van Widenfelt et al., 2005). Translating the actual translation literally—word for word—back into the source language and comparing the two source language versions is a simple way to achieve a high degree of agreement and obtain mere linguistic equivalence. However, back translation does not guarantee that the actual translation is linguistically and culturally appropriate (i.e., pragmatically equivalent) as well as comprehensible in the target culture. In addition, back translation is expensive and time consuming (Grunwald & Goldfarb, 2006).

Because of the lack of consensus on an appropriate translation method for health and quality-of-life instruments, multiple groups gathered at different times to create guidelines for translation. The first group consisted of members from various countries who participated in a project known as The International Quality of Life Assessment (Aaronson et al., 1992). The countries involved were Australia, Belgium, Canada, Denmark, France, Germany, Italy, Japan, the Netherlands, Norway, Spain, the United Kingdom, and the United States. The guidelines created were informed by the translation and back-translation model. Later, in 2001, the International Society for Pharmacoeconomic and Outcomes Research convened a group known as Translation and Cultural Adaptation (TCA) to carry out an extensive study of the then-current translation practices. The TCA group examined 12 major sets of guidelines available for translation and cultural

adaptation. Subsequently, the TCA group published the International Society for Pharmacoeconomic and Outcomes Research Principles of Good Practice: The Cross-Cultural Adaptation Process for Patient-Reported Outcomes Measures, which recommended 10 steps to produce measurement instruments that take into consideration of how the instruments will be perceived by respondents (Wild et al., 2005). Although these guidelines were prepared for international use, a similar project was carried out by the European Regulatory Issues on Quality of Life Assessment (ERIQA) group with reference to HRQoL instruments (Acquadro, 2003). We believe that the recommendations from the TCA and ERIQA are very similar. We summarize the 10 steps recommended by Wild et al. (2005): (1) preparation: initial preparation work; (2) forward translation: translating the text from the source language into the target language; (3) reconciliation: comparing and merging more than one forward translation into a single forward translation; (4) back translation: retranslating the target language translation back to the source language; (5) back translation review: comparing the back translation with the source language version; (6) harmonization: comparing all new translations with each other and the source version; (7) pretesting and cognitive debriefing: pilot testing the translated instruments with actual users; (8) review of cognitive debriefing results and finalization: comparing the users' feedback with the source language version to identify issues and then change the translation; (9) proofreading: minimizing spelling, grammar, and style errors; and (10) final report: documenting the translation process. In addition to guidelines by Wild et al. (2005) on translation, there are more detailed guidelines on implementing the international harmonization step in instruments—one that involves cultural adaptation of the instruments for different settings (Beaton et al., 2000; Guillemin et al., 1993).

Notwithstanding the guidelines on international harmonization, there is a lack of consensus on how best to achieve it (Wild et al., 2005). Some groups advocate achieving harmonization in a separate step in which different translations are compared with each other and with the original. Others propose making these comparisons throughout the translation development process and argue that it is a cost-saving measure because translators from different countries are working collaboratively and simultaneously on the same project. In particular, for harmonizing different regional varieties of a shared language across countries, researchers are still investigating ways of improving implementation of the harmonization step (e.g., Harkness et al.,

2016). Regardless of the translation context, it is critical that researchers document the translation process; as most published literature demonstrates, there is little documentation on actual translation procedures (Maneesriwongul & Dixon, 2004; Squires, 2009). Furthermore, documentation should record whether the instrument was adapted before it was administered in a different culture or region.

Methods

The Spanish Translation of the QWB-SA

The QWB (Kaplan et al., 1997) was developed—in American English—by researchers at the University of California, San Diego in the mid-1990s to evaluate a patient's quality of life in relation to his or her state of health and also to determine the degree of efficacy of treatments, compare costs, and examine outcomes (Drummond, O'Brien, Stoddart, & Torrance, 2001). A later version (QWB-SA) was designed to be self-administered by the patient and consists of five sections with a total of 78 multiple-choice items and questions (see the QWB-SA website for the English and Spanish versions: https://hoap.ucsd.edu/qwb-info/). Each section refers to a particular topic, all measured over the previous 3 days: (1) symptoms and problems, (2) self-care, (3) mobility, (4) physical activity, and (5) usual everyday activity,. According to the developers of the QWB (personal communication with J. Harvey on behalf of the developers, University of California, San Diego, August 23, 2007; September 26, 2007), multiple translations into Spanish and back translations into English were carried out by a panel of bilingual translators of mainly Mexican origin. The QWB-SA Spanish translation process followed an approach in which a questionnaire was translated from an original source language into another language with no further harmonization step following the translation (Anderson, Aaronson, Bullinger, & McBee., 1996; Bullinger et al., 1993; van Widenfelt et al., 2005). The Spanish QWB-SA exists in a single Spanish version that is intended for use in Spain, in Latin America, and among Spanish-speakers residing in the United States.

Evaluation of the QWB-SA Spanish Translation

To evaluate the Spanish translation of the QWB-SA in the context of Spain, the lead author compared the official Spanish translation to the source questionnaire in English. The first author is fluent in both Spanish and

English and is trained in linguistics and questionnaire translation. A panel of reviewers was not used for this evaluation because of cost constraints. However, the evaluation was discussed with the chapter's coauthor to reduce the risk of subjectivity in the identification of translation issues. The Spanish translation and the English source text were compared using a contrastive-analysis model of parallel texts based on Nord's functional approach (Nord, 1991, 1997, 2009). According to Nord, the contrastive-analysis model should apply a functional approach to translation, which focuses on producing a translation that is adapted to the local culture of interest. This approach is firmly rooted in a sociocultural perspective, according to which a translation is a form of intercultural communication (Nord, 1991, 1997, 2009). In particular, the bilingual reviewer (the lead author) compared the Spanish translation with the original English QWB-SA and evaluated the appropriateness of the Spanish translation to the linguistic and cultural context of Spain.

Results

Translation Issues in the Spanish QWB-SA

Many translation issues were identified in the QWB-SA (Congost-Maestre, 2010); however, due to the space limitations of this chapter, we only present five major issues, with a limited number of examples for each. In addition, we provide recommendations on how to improve the translation to adapt it to the Spanish context. The five translation issues were:

- Literal translations (e.g., "shortness of breath" vs. *respiración corta*);
- Mistranslation of polysemic items (e.g., "discharge" vs. *flujo*);
- False friends (and lexical anglicisms), such as *severo* for "severe";
- US-specific concepts or terms, such as "Tylenol," race and ethnicity categories, or educational level (e.g., "8th grade"); and
- Regional (mostly Mexican) lexical choices (e.g., *manejar*).

Linguistic Level

Translations, Words, or Expressions That Are Too Literal

Multiple words or expressions used in the Spanish QWB-SA translation are not appropriate for the linguistic and cultural context in Spain. Specifically,

Table 10-1. Example 1

Language	Survey Instructions[a]
Source (American English):	Please do not use "check marks" or "felt tip pens."
QWB Spanish translation:	Por favor no use marcas de chequear o bolígrafos de felpa.
Adapted Spanish translation for Spain:	Por favor, no ponga la *marca de visto* [✓] ni utilice *rotuladores*.

QWB = Quality of Well-Being Scale.

[a]Keywords are in quotation marks (English) or in italics (Spanish) to clarify the issue described here.

there are many literal, word-for-word translations from English into Spanish (see Table 10–1, Example 1, and Table 10–2, Example 2).

In Table 10–1, Example 1 shows an incorrect literal translation of "check marks" and "felt tip pens." The Spanish term *chequear* derives from the English word "check," and it means to subject something or someone to a kind of control, examination, or verification. The expression *marcas de chequear* does not exist in the Spanish language as used in Spain. Whereas a "pen" can sometimes be *bolígrafo* and "felt" is certainly *felpa*, a "felt tip pen" is not a *bolígrafo de felpa* (plush pen) in Spain. Based on our analysis, the following would be an appropriate translation for Spain:

- A "check mark" would be correctly translated as a *señal o marca de visto* (sign or mark of having seen, tick), *marca de comprobación* (mark of check), *marca de verificación* (mark of verification), or even *tic* (tick), to convey the meaning of "Yes, this is the correct answer."
- A "felt tip pen" is called a *rotulador* in Spain and a *marcador* (marker) in Latin America.

In Table 10-2, Example 2 contains an incorrect literal translation of the expression "shortness of breath," which was translated as *respiración corta* (short breathing), an expression which does not exist in Spanish. Word

Table 10-2. Example 2

Language	Survey Question 2, Item k[a]
Source (American English):	Did you have "shortness of breath" or difficulty breathing?
QWB Spanish translation:	¿Tuvo Ud. *respiración corta* o dificultad al respirar?
Adapted Spanish translation for Spain:	¿Tuvo *sensación de ahogo* o dificultad para respirar?

QWB = Quality of Well-Being Scale.

[a]Keywords are in quotation marks (English) or in italics (Spanish) to clarify the issue described here.

combinations such as "shortness of breath" can rarely be translated word for word but need to be translated as lexical elements in their own right. "Shortness of breath" should be translated as *falta de aire o sensación de ahogo* (lack of air or feeling of breathlessness) in the Spanish language for Spain.

Mistranslation of Polysemic Words

Another issue identified in the Spanish QWB-SA translation was the mistranslation of polysemic words, that is, incorrect translation of words that have multiple meanings in a language. Tables 10–3 and 10–4 illustrate this issue.

In Table 10–3, Example 3 shows the wrong choice of meaning for "cramp." According to the Navarro (2006) English–Spanish medical dictionary, "cramp" is a polysemic word whose meaning and eventual translation depend on its linguistic environment or the overall context (e.g., *espasmo* [spasm], *calambre muscular* [muscle cramp], *cólico* [colic], or *tener la menstruación* [to get the cramps]). The concept "pelvic cramping" in Example 3 was translated as *calambre en el área pélvica* (cramp in the pelvic area). These phrases do not describe the same condition because *calambre* refers to "muscle pain," which is completely different from menstrual pain. The appropriate translation requires a Spanish phrase indicating "unusually severe menstrual pain, sometimes occurring outside the actual period of menstruation": *dolores de tipo menstrual más fuertes de lo normal o fuera del periodo de la menstruación*. In this particular example, there are also changes in the lexical register and changes from singular to plural, among others, which we do not examine further.

Table 10-3. Example 3

Language	Survey Question 2, Item q[a]
Source (American English):	Did you have genital pain, itching, burning, or abnormal discharge, or "pelvic cramping" or abnormal bleeding? (does not include normal menstruation)
QWB Spanish translation:	¿Tuvo Ud. dolor en los órganos sexuales, comezón, ardor o flujo anormal o *calambre en el área pélvica* o sangrado anormal?
Adapted Spanish translation for Spain:	¿Tuvo picor o escozor genital, flujos o sangrados anormales, o dolores de tipo menstrual más fuertes de lo normal o fuera del periodo de la menstruación?

QWB = Quality of Well-Being Scale.

[a]Keywords are in quotation marks (English) or in italics (Spanish) to clarify the issue described here.

Table 10-4. Example 4 and Example 5

Example 4	
Language	Survey Question 2, Item b[a]
Source (American English):	Did you have any eye pain, irritation, "discharge," or excessive sensitivity to light?
QWB Spanish translation:	¿Tuvo Ud. algún dolor en los ojos, irritación, *flujo* o sensibilidad excesiva a la luz?
Adapted Spanish translation for Spain:	¿Tuvo algún dolor, irritación o *secreción* de los ojos, o sensibilidad excesiva a la luz?
Example 5	
Language	Survey Question 2, Item e[a]
Source (American English):	Did you have difficulty hearing, or "discharge," or bleeding from an ear?
QWB Spanish translation:	¿Tuvo Ud. dificultad para oír, *flujo* o sangrar de un oído?
Adapted Spanish translation for Spain:	¿Tuvo dificultad para oír, o el oído le *supuró* o le sangró?

QWB = Quality of Well-Being Scale.

[a]Keywords are in quotation marks (English) or in italics (Spanish) to clarify the issue described here.

In Table 10–4, Examples 4 and 5, the word "discharge," despite its polysemic nature, has in both cases been translated as *flujo*, similar to Item q in Example 3. This reveals a lack of comprehension of the original English word in different contexts. It would be more appropriate to translate "discharge" as *secreción* (secretion from the eye) in Example 4 and as *supuración* (suppuration from the ear) in Example 5 to better match the context.

False Friends (and Lexical Anglicisms)

The Spanish QWB-SA does not adequately take into consideration of words that sound similar (in English and Spanish) but differ significantly in meaning. Table 10–5 uses Example 6 to illustrate this point. For instance, Example 6 includes the adjective "severe" and the adverb "severely." One must be wary of such words when translating them, since "severe"/*severo* and "severely"/*severamente* are known in linguistics as false friends: apparently close or even formally identical but not really so. *Severo* is also a lexical anglicism (an unmodified borrowing from English), which is now used in Spain with increasing frequency as a synonym for the Spanish word *grave*, but it is not accepted as correct. *Severo* means *serio* (serious) or *riguroso* (rigorous,

Table 10-5. Example 6

Language	Survey Question 1, Items a & d[a]
Source (American English):	Do you have… 1a. blindness or "severely" impaired vision in both eyes? 1d. any deformity of the face, fingers, hand or arm, foot or leg, or back (e.g., "severe scoliosis")?
QWB Spanish translation:	¿Tiene Ud… 1a. Pérdida completa de la vista o problemas *severos* en ambos ojos? 1d. Alguna deformidad de la cara, dedos, mano o brazo, pie o pierna, o espalda (por ejemplo, *escoliosis severo*)?
Adapted Spanish translation for Spain:	1a. ¿Tiene ceguera o problemas *graves* de la vista en los dos ojos? 1d. ¿Tiene alguna deformación en la cara, dedos, mano, brazo, pie, pierna o espalda (por ejemplo, *escoliosis grave*)?

QWB = Quality of Well-Being Scale.

[a]Keywords are in quotation marks (English) or in italics (Spanish) to clarify the issue described here.

strict, severe) and can only be used to refer to a person's character. Severe should therefore be translated as *grave* in this context (Navarro, 2006).

Sociocultural Level

US-Specific Concepts or Terms

The Spanish QWB-SA uses many US-specific concepts and terms; however, such concepts or terms may not be appropriate for the cultural context in Spain, as demonstrated in Table 10-6, Example 7. The term "Tylenol," a brand name registered in the United States, has *Termalgin* as the corresponding brand name for Spain. Because the brand names are different, using the generic name of the ingredients (analgesic paracetamol in this case) would,

Table 10-6. Example 7

Language	Survey Question 3, Item l[a]
Source (American English):	Have you had to take any medication including over-the-counter remedies (aspirin/"Tylenol," allergy medications, insulin, hormones, estrogen, or thyroid, "Prednisone")?
QWB Spanish translation:	¿Ha tenido Ud. que tomar algún medicamento incluyendo medicinas no recetadas (aspirina*/tylenol*, medicinas para alergias, insulina, hormonas, estrógeno, tiroides y *prednisone*)?
Adapted Spanish translation for Spain:	¿Ha tenido que tomar medicamentos? Por favor, incluya los que se pueden comprar sin receta (por ejemplo, aspirina, *paracetamol*, *prednisona*, insulina, hormonas, estrógenos, medicinas para la tiroides o para las alergias).

QWB = Quality of Well-Being Scale.

[a]Keywords are in quotation marks (English) or in italics (Spanish) to clarify the issue described here.

therefore, be more appropriate than a brand name. Only worldwide knowledge on the part of the translator can avoid such cultural confusions.

Another issue with the Spanish QWB-SA is that it does not adequately take into consideration of regional lexical variation. Table 10-7, Example 8, exemplifies this, where the expression "walk off the curb" is translated as *caminar fuera de la banqueta* (walk off the footstool), a translation based on Mexican Spanish; consequently, it is incomprehensible to other populations of Spanish-speakers, including those in Spain. The word "curb" (or "kerb") refers to the *bordillo de la acera* (the edge of a pavement or sidewalk), and there are many variants used throughout Latin America (e.g., *banqueta* in Mexico and Guatemala; *cordon* in Argentina, Bolivia, Chile, Costa Rica, Paraguay, and Uruguay; *sardinel* in Colombia and Peru; and *vereda* in other parts of Latin America). This diversity reveals the challenge encountered in attempting to achieve a valid translation for all speakers of the Spanish language.

Furthermore, throughout the Spanish QWB-SA, there are many questions that use words that are specific to Latin American linguistic communities (Mexico in particular) and are therefore not applicable to Spain (see the QWB-SA website for the overall questionnaire context). The Spanish term *ardor* (burning) in Item 1k should be *escozor* (burning) in Spain; *escozor* would be a more regionally appropriate rendering of this term. *Ardor* is used in Spain as *ardor de estómago* (heartburn produced by stomach acid). Another example is *comezón* (itching; Item 1k), which should be *picor* (itching) in Spain. When using *comezón* in Spain, it usually mean "moral discomfort". *Salpullido* (rash; Item 1k) should be *sarpullido o erupción cutánea* (rash) in Spain; *anteojos* (glasses; Item 1d) should be *gafas* (glasses) in Spain; *relumbrón* (flash, burst of light; Item 2a) should be *destello* (flash, burst

Table 10-7. Example 8

Language	Survey Question 7, Item a[a]
Source (American English):	Did you have trouble climbing stairs or inclines or "walking off the curb"?
QWB Spanish translation:	¿Tuvo Ud. dificultad al subir escaleras, usar rampas o *caminar fuera de la banqueta*?
Adapted Spanish translation for Spain:	¿Tuvo dificultad para subir escaleras o cuestas, o *para bajar de la acera*?

QWB = Quality of Well-Being Scale.

[a]Keywords are in quotation marks (English) or in italics (Spanish) to clarify the issue described here.

of light) in Spain; *quijada* (jaw; Item 2h) should be *mandíbula* (jaw) in Spain; *coyuntura* (joint, articulation; Item 2u) should be *articulación* (joint, articulation) in Spain (when using the word *coyuntura* in Spain, we usually mean "situation" or "opportunity"); *cruda* (hangover; Item 3h) should be *resaca* (hangover) in Spain; *manejar* (drive; Item 6c) should be *conducir* (drive) in Spain; and *banqueta* (curb; Item 7a) should be *acera* (curb) in Spain (when using *banqueta* in Spain, it means "footstool," as previously mentioned). These examples show that many lexical choices in the translation are either uncommon in Spain or have a different meaning. The questionnaire should have taken into account lexical differences between Spanish and the various Latin American (sub-) cultures and consequently should have proposed different adaptations with alternative terms for each linguistic community. In the example of "walking off the curb," the translation for Spain should read *bajar de la acera*. A potential solution could also be to try to find a broader Spanish word that would be well understood by most Spanish-speakers, but this is not always possible.

Discussion

We evaluated the Spanish QWB-SA translation and identified multiple translation issues that may make a successful implementation of the instrument in Spain difficult. These translation issues included literal translations, mistranslations of polysemic words, false friends, use of US-specific concepts instead of culturally appropriate or more universally understood concepts, and regional lexical choices. Interestingly, although the Spanish QWB-SA was translated using a common international protocol based on a translation and back translation multistep method and with a broad Spanish-speaking audience in mind (at least in theory), we discovered these translation issues. The translation issues highlight the need for shared language harmonization and improvements in the translation review process in general. For instance, deficiencies in lexical register differentiation stem from a lack of shared language harmonization between Spanish and Latin American cultures. The application of a questionnaire in different countries speaking the same language requires appropriate translation and cultural adaptation (Beaton, Bombardier, Guillemin, & Ferraz, 2000; Guillemin et al., 1993; Wild et al., 2005). This particular instrument, initially developed in the United States and translated principally into Mexican Spanish, will not necessarily be immediately applicable to any other Spanish-speaking country.

Because we were unable to find detailed documentation of how the Spanish translation was done in the United States, it was difficult to understand how much piloting or pretesting was done to ensure that the Spanish QWB-SA was truly applicable to all relevant Spanish-language target groups. From our evaluation, it appears that the Spanish QWB-SA was not translated and not assessed to be universally understood in Spanish-language countries, including Spain.

Although the original Spanish QWB-SA used back translation, the back translation did not identify (Spain-specific) translation issues, such as literal translation, polysemy, false friends, or anglicisms, among other possible issues. A possible explanation for the translation issues identified could be a lack of using bilingual or monolingual resources, such as including Spanish speakers from different Spanish-speaking countries during the translation process or using dictionaries from different countries to assist with the translation. However, we acknowledge that the translation procedures might have been deliberately chosen to accommodate cost and access to translators. Perhaps it was more cost effective to use translators who were Spanish-speaking but of Mexican descent because researchers simply had access to them. This highlights the need for researchers to weigh the cost of translation. Specifically, what do researchers need to consider in terms of costs to obtain high-quality translations that can be used in multiple Spanish-speaking countries?

With regard to the sociocultural issues at the lexical-semantic level, the deficiencies that have been revealed are due to the concepts not having been adapted to the target culture, in this case, Spain. It is essential, as we have seen, to bear in mind the sociocultural context and language usage in each country where the instrument is to be administered and to overcome the linguistic and cultural differences. Translators are not always acquainted with the situational and cultural context(s) to which the instrument belongs. They need to be equipped not only with a sound knowledge of the two languages, but also with a considerable wealth of world knowledge and cultural experience. Another option would, of course, be to use a more diverse translation team.

There are some limitations to this chapter. Because of space constraints, only certain lexical deficiencies, including linguistic and pragmatic cultural issues, were examined in this study. Further studies could examine more examples of both types of issue, as well as the impact of visual design (e.g., layout, format, and typographical variables that motivate the user to complete the questionnaire) on response bias of the Spanish QWB-SA. Another

limitation is that only one reviewer examined the translation issues, although a second assessor was later involved in the discussion of these issues. The reviewer may have missed issues or had idiosyncratic interpretations. Future studies could use a panel of reviewers to conduct the analysis. In addition, testing the translation with respondents could be another solution to assess the quality of the translation—which is also one of the steps recommended by Wild et al. (2005).

Conclusions

The findings of this study highlight the need for the Spanish QWB-SA to be revised and adapted for use in Spain, and probably for its originally intended context as well. Further, understanding of which translation guidelines were followed requires documentation of the translation process. Finally, urgent measures are needed to improve research on the translation of health science and health psychology questionnaires, an area of study that is largely ignored in most departments of translation at the university level. Improvement in the quality of such translations can benefit the health of diverse populations.

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